

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

NATURAL HISTORY OF PLUMMERS ISLAND,
MARYLAND.

I. INTRODUCTION.

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The Washington Biologists' Field Club was founded early in 1900 with the primary object of forwarding the study of the natural history of the District of Columbia and vicinity. In June of the following year, having incorporated in the meantime and having increased somewhat its small membership, the Club took out a five-year lease of Plummers Island, lying in the Potomac River near the Maryland shore, about ten miles above Washington, and erected here a small camp. Subsequently (1908), by grant of original patent and the purchase of quitclaim, it acquired title to the Island and about 35 acres of land upon the adjacent Maryland shore. The latter stretch, known to members commonly as "the mainland," has since been increased by purchase to nearly 40 acres. The Island itself, separated from the Maryland shore by a narrow channel which varies considerably according to season, is in the form of an elongate triangle pointing downstream, eastward. It comprises about 15 acres, and is quite as diverse in terrain as the shore property.

This entire territory of more than 50 acres has been the subject of intensive study since 1901, and has proved of exceptional interest. A great mass of biological data of many sorts, including life history studies, migration records, and the description of scores of new forms, has been accumulated; and although the most painstaking investigation of any area, however small, can in the nature of things never be complete, it has nevertheless seemed desirable to offer for publication,

group by group, briefly annotated lists of the species thus far observed or collected in this restricted locality. These, it is thought, will be helpful to local naturalists for the information they afford, and stimulating because of their very lacunae. Species omitted or overlooked, or recorded doubtfully in these lists, will become real desiderata not only to present but future collectors.

The general features of the Potomac gorge above Washington are well known and have been described by Ward,¹ McAtee,² and others. Plummers Island and its vicinity are fairly typical of this region. The Island is rocky nearly throughout, with several high precipitous cliffs, its margins consisting of a flood-plain of varying extent which naturally is greatest at the low, pointed, downstream end. It is mostly covered by trees in mixed association, and supports a luxuriant growth of undershrubs, ferns, and herbaceous flowering plants. The highest part is the knoll where the cabin stands, 125 feet above sea level and about 75 feet above mean low-water mark. Halfway toward the western end of the island is a similar hill, 25 feet lower, which is precipitous to the west. The "mainland" shore territory, extending westward along the old Chesapeake and Ohio Canal from Lock 10 to Lock 12 and southward to the river, includes among other features a field of several acres, formerly under cultivation but now growing up rapidly to young pines, the small deep ravine of Rock Run, a swampy area near Lock 12, and three shallow woodland pools (between the swamp and the ferry), which are more or less permanent. A few necessary trails have been cut, but otherwise the whole 55 acres of Island and "mainland" has consistently been left in its original condition.

The field work has been done mostly by club members, nearly all chosen from the scientific personnel of the Smithsonian Institution, Geological Survey, Department of Agriculture, and District of Columbia High Schools. Only two or three formal lists of species in any group have hitherto been published, although a very large number of papers dealing incidentally with the biology of Plummers Island and its immediate vicinity

¹*Guide to the Flora of Washington and Vicinity.* (Bull. U. S. Nat. Mus. 26. Pp. 1-264, with map. 1881.)

²*Sketch of the Natural History of the District of Columbia.* (Bull. Biol. Soc. Washington. Pp. 1-142. 1908.)

have appeared. Careful card-catalogue records have been kept, however, and these are mainly substantiated by specimens, so that in most groups the preparation of lists will not offer great difficulty. The specimens collected are in large part preserved in the National Museum or, in the case of the ferns and flowering plants, at the clubhouse. The preservation of specimens is especially important because of the various changes that necessarily have taken place in the Island during the past 35 years and will continue from natural and other causes. With alteration of habitat conditions certain species have disappeared and others have come in, an excellent example of the latter being the numerous aquatic and shore plants recorded by Killip³ for the low-water summer season of 1930. Besides topographic changes, there has been in recent years a considerable modification in the tree-covering of the Island, mainly from drought, with consequent letting-in of sunlight, which already is bringing about changes in the herbaceous vegetation. Similar variation is noted in the insect fauna; but fallen timber has mostly been allowed to remain in place, and in other ways natural conditions have been preserved in so far as possible. Members of the Club have never numbered more than 50 at one time. They, with many distinguished visiting biologists who have collected upon the Island, have given it an almost unique place in current natural history studies.

³Proc. Biol. Soc. Washington 44: 111-116. 1931.